

WHAT IS CLAIMED:

1 1. A MRI RF coil array, said array comprising:
2 a first coil having a null B_1 point and a quasi-one-peak
3 sensitivity profile; and
4 a second coil oriented with respect to said first coil to
5 reduce coupling.

1 2. A MRI RF coil array according to claim 1, wherein said
2 second coil is within said first coil.

1 3. A MRI coil array according to claim 1, wherein said
2 second coil overlaps said first coil.

1 4. A MRI coil array according to claim 1, wherein said
2 second coil is cascaded with said first coil.

1 5. A MRI coil array according to claim 1, wherein said
2 second coil is solenoidal.

1 6. A MRI coil array, said array comprising:
2 a first solenoidal coil having a first section and a second
3 section, said first section having more turns than said
4 second section and said second section having a
5 counter-rotational orientation with respect to said
6 first section; and
7 a second solenoidal coil, said second coil being oriented
8 with respect to said first coil to reduce coupling.

1 7. A MRI coil array according to claim 6, wherein said
2 second coil is oriented between said first and second sections.

1 8. A MRI coil array according to claim 6, wherein said
2 second coil is oriented about said second section.

1 9. A MRI coil array according to claim 6, wherein said
2 second coil is cascaded with said first coil.

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